IN THE CLAIMS:

1. An omnidirectional scanning system capable of reading at least one optical code within a field of view of the scanning system and oriented in an orientation included in a set of multiple orientations, said scanning system comprising:

at least one processor comprising:

means for operating the scanning system in at least two modes, said means for operating comprising:

means for operating the scanning system in a first mode of said at least two modes, wherein said first mode is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations; and

means for operating the scanning system in a second mode of said at least one mode, wherein said second mode is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a selectable reduced set of the set of multiple orientations.

2. The scanning system according to Claim 1, wherein the scanning system is selected from the group consisting of laser and imager scanning systems.

3. The scanning system according to Claim 1, further comprising:

at least one light source illuminating at least a portion of the at least one optical code; and a sensor module for sensing light reflected from at least a portion of the at least one optical code and incident on the sensor module, and generating sensing signals corresponding to the sensing.

4. The scanning system according to Claim 3, wherein the at least one processor further comprises means for decoding the generated sensing signals for decoding the at least one optical code.

5. The scanning system according to Claim 4, wherein the means for decoding is selectively enabled via a user request.

6. The scanning system according to Claim 5, wherein the means for decoding is selectively enabled in accordance with the user request when the means for operating in the second mode is enabled.

7. The scanning system according to Claim 3, further comprising means for generating at least first and second scan line patterns using at least one light beam generated by the at least one light source, wherein the first scan line pattern is generated when the means for operating in the first mode is enabled, and the second line pattern is generated when the means for operating in the second mode is enabled, wherein the first scan line pattern includes a plurality of scan lines and the second scan line pattern includes at least one selected scan line from the plurality of scan lines.

8. The scanning system according to Claim 1, wherein the at least one processor further comprises:

orientation determination means for processing sensing signals generated by a sensor that correspond to sensing of the at least one optical code and determining an orientation relative to a predetermined axis of respective sensed optical codes of the at least one optical code;

means for selecting sensing signals that correspond to respective sensed optical codes of the at least one optical code having a determined orientation within a selectable range when the means for operating in the second mode is enabled; and

means for decoding only the selected sensing signals.

9. The scanning system according to Claim 1, wherein when operating in the second mode, the scanning system operates as a single line scanning system.

10. The scanning system according to Claim 7, further comprising: further comprising:

at least one light source illuminating at least a portion of the at least one optical code;

a control circuit for controlling operation of the at least one light source; and

wherein the at least one processor includes a means for generating a control signal for controlling the control circuit for selectively enabling the at least one light source for generating a selected scan pattern of the first and second scan patterns.

11. The scanning system according to Claim 1, wherein the means for operating further comprises means for operating the scanning system in a third mode of the at least two modes; and

wherein the at least one processor processes a user request for adjusting at least one adjustable parameter of the scanning system when the means for operating in the third mode is enabled.

12. The scanning system according to Claim 11, wherein the at least one adjustable parameter is selected from the group consisting of intensity of a status indicator and at least one range of angles defining the reduced set of the set of multiple orientations.

13. The scanning system according to Claim 11, wherein enablement of the means for operating in the first mode, the means for operating in the second mode and the means for operating in the third mode is in accordance with the received user request.

14. The scanning system according to Claim 1, wherein the at least one processor further comprises a means for processing a user input optical code read by the scanning system;

wherein the user input optical code includes at least one input request selected from the group consisting of a mode selection request and a parameter request; and

wherein the means for operating the scanning system operates in a selected mode of the at least two modes in accordance with the processing of the mode selection request, and the reduced set is configured in accordance with the processing of the parameter request.

15. A two-dimensional imager scanning system capable of reading at least one optical code within a field of view of the scanning system and oriented in an orientation included in a set of multiple orientations, said scanning system comprising:

a sensor module including at least a two-dimensional optical detector array for sensing light reflected from at least a portion of the at least one optical code and incident on the sensor module, and generating sensing signals corresponding to the sensing; and

at least one processor comprising:

means for operating the scanning system in at least two modes, said means for operating comprising:

means for operating the scanning system in a first mode of said at least two modes, wherein said first mode is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations;

means for operating the scanning system in a second mode of said at least one mode, wherein said second mode is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations; and

means for processing the sensing signals.

16. The scanning system according to Claim 15, wherein the orientation of the reduced set is defined by a range of angles relative to a predetermined axis.

17. The scanning system according to Claim 15, wherein when operating in the second mode, the scanning system operates as a single line scanning system.

18. The scanning system according to Claim 15, wherein the means for operating further comprises means for operating the scanning system in a third mode of the at least two modes; and

wherein the at least one processor processes a user request for adjusting at least one adjustable parameter of the scanning system when the means for operating in the third mode is enabled.

19. The scanning system according to Claim 15, wherein the at least one processor further comprises a means for processing a user input optical code read by the scanning system;

wherein the user input optical code includes at least one input request selected from the group consisting of a mode selection request and a parameter request; and

wherein the means for operating the scanning system operates in a selected mode of the at least two modes in accordance with the processing of the mode selection request, and the reduced set is configured in accordance with the processing of the parameter request.

20. The scanning system according to Claim 15, the at least one processor further comprising:

orientation determination means for processing respective sensing signals for determining an orientation relative to a predetermined axis of a corresponding optical code of the at least one optical code;

selector means for selecting respective sensing signals wherein the orientation of the optical code corresponding to the selected sensing signals is within a predetermined range; and

decoder means for decoding the sensing signals, wherein when the scanning system operates in the second mode decoding only the selected sensing signals.

21. An omnidirectional scanning system including a scanning device capable of reading at least one optical code within a field of view of the scanning system and oriented in an orientation included in a set of multiple orientations, said scanning system comprising:

one single position actuator responsive to at least one user action for generating at least one user request signal;

at least one processor comprising:

means for operating the scanning system in at least two modes, said means for operating comprising:

means for operating the scanning system in a first mode of said at least two modes, wherein said first mode is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations; and

means for operating the scanning system in a second mode of said at least one mode, wherein said second mode is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations;

decoder means for decoding sensing signals generated by a sensor sensing the at least one optical code, generating at least one decode signal corresponding to the decoding, and transmitting the at least one decode signal for further processing thereof; and

means for enabling the means for operating the scanning system in a first mode, the means for operating the scanning system in a second mode and the decoder means in accordance with the at least one user request signal.

22. The scanning system according to Claim 21, further comprising means for adjusting system parameters of the scanning system, wherein the means for adjusting system parameters is selectively enabled in accordance with the at least one user request.

23. The scanning system according to Claim 22, wherein the system parameter is an orientation parameter for selecting the reduced set of the set of multiple orientations.

24. The scanning system according to Claim 21, wherein the decode signal is further processed by at least one of a processor external to the scanning device and a display device of the scanning system.

25. A method for reading at least one optical code within a field of view of the scanning system and oriented in an orientation included in a set of multiple orientations, said method comprising the steps of:

operating the scanning system in a mode selected from at least two modes, including a first mode that is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations, and a second mode that is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a selectable reduced set of the set of multiple orientations; and

decoding the at least one read optical code.

26. The method according to Claim 25, wherein the decoding step comprises the step of decoding sensing signals generated by a sensor that correspond to sensing of the at least one optical code for generating a decoded digital code.

27. The method according to Claim 26, further comprising the step of selectively enabling a decoder for decoding the sensing signals in accordance with a user request.

28. The method according to Claim 25, further comprising the steps of:

illuminating at least a portion of the at least one optical code with at least one light source;

generating at least first and second scan line patterns using at least one light beam generated by the at least one light source, wherein the first scan line pattern is generated when operating in the first mode, and the second line pattern is generated when operating in the second mode, wherein the first scan line pattern includes a plurality of scan lines and the second scan line pattern includes at least one selected scan line from the plurality of scan lines.

29. The method according to Claim 25, further comprising the steps of:

sensing light reflected from at least a portion of the at least one optical code;

generating sensing signals corresponding to sensing of the at least one optical code;

determining an orientation relative to a predetermined axis of respective sensed optical codes of the at least one optical code;

selecting sensing signals that correspond to respective sensed optical codes of the at least one optical code having a determined orientation within a selectable range when operating in the second mode; and

decoding the selected sensing signals.

30. The method according to Claim 28, further comprising the step of controlling operation of the at least one light source for selectively enabling the at least one light source to generate a selected scan pattern of the first and second scan patterns.

31. The method according to Claim 25, further comprising the step of selectively operating the scanning system in a third mode for adjusting at least one adjustable parameter of the scanning system in response to a received user request.

32. The method according to Claim 31, wherein the at least one adjustable parameter includes at least one range of angles defining the reduced set of the set of multiple orientations.

33. The method according to Claim 25, further comprising the step of selecting the mode of operation in accordance with a received user request.

34. The method according to Claim 28, wherein the second scan line pattern includes one set of two or more parallel scan lines.

35. A method for reading at least one optical code within a field of view of the scanning system and oriented in an orientation included in a set of multiple orientations, said method comprising the steps of:

imaging the at least one optical code including sensing light reflected from at least a portion of the at least one optical code with at least a two-dimensional array of optical detectors;

generating sensing signals corresponding to the sensed light reflected from the imaged at least one optical code; and

operating the system in a mode selected from at least two modes including a first mode that is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations, and a second mode that is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations.

36. The method according to Claim 35, further comprising the steps of:

determining an orientation relative to a predetermined axis of respective imaged optical codes of the at least one optical code;

selecting sensing signals that correspond to the respective imaged optical codes of the at least one optical code having a determined orientation within a predetermined range when operating in the second mode; and

decoding the selected sensing signals.

37. The method according to Claim 36, further comprising the step of selecting the predetermined range in accordance with a user request.

38. A method for reading at least one optical code within a field of view of the

scanning system and oriented in an orientation included in a set of multiple orientations, said method comprising the steps of:

generating at least one user request signal in response to at least one user action performed on a one, single position actuator;

operating the system in a mode selected from at least two modes including a first mode that is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations, and a second mode that is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations;

decoding sensing signals generated by a sensor sensing the at least one optical code;

generating at least one decode signal corresponding to the decoding;

transmitting the at least one decode signal for further processing thereof; and

enabling at least one of the decoding, generating and transmitting of the at least one decode signal in accordance with the at least one user request signal.

39. The method according to Claim 38, further comprising the steps of:

adjusting at least one system parameter of the scanning system; and

enabling the adjusting in accordance with the at least one user request.

40. The method according to Claim 39, wherein the at least one system parameter is an orientation parameter for selecting the reduced set of the set of multiple orientations.